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| APPLICATION NO. | F | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|------------------------|------|--------------|-------------------------|---------------------|------------------|--|
| 10/036,237 12/28/2001 | | 12/28/2001 | Duane D. Grosskrueger | 41992-00527 | 3353 | |
| 25231 | 7590 | 09/15/2003 | | | | |
| • | | ANN & BREYFO | EXAM | EXAMINER | | |
| 3151 SOUT SUITE 411 | | | NOLAN, SANDRA M | | | |
| AURORA, CO 80014 | | | | ART UNIT | PAPER NUMBER | |
| | | | | 1772 | | |
| | | | DATE MAILED: 09/15/2003 | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | • | | \mathcal{A} | | | | | | |
|--|---|--|---|---------------|--|--|--|--|--|--|
| | Application | ı No. | Applicant(s) | | | | | | | |
| • | 10/036,237 | | GROSSKRUEGER | RETAL. | | | | | | |
| Office Action Summar | y Examiner | | Art Unit | | | | | | | |
| | Sandra M. I | lolan | 1772 | | | | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address | | | | | | | | | | |
| Peri d for Reply | OD FOR REDUVIO SET TO | EVELET A MONTH | (C) FDOM | | | | | | | |
| A SHORTENED STATUTORY PERIC THE MAILING DATE OF THIS COMM - Extensions of time may be available under the provafter SIX (6) MONTHS from the mailing date of this - If the period for reply specified above is less than the serious form of the maxim - Failure to reply within the set or extended period for Any reply received by the Office later than three mearmed patent term adjustment. See 37 CFR 1.704 Status | MUNICATION. visions of 37 CFR 1.136(a). In no even secommunication. hirty (30) days, a reply within the statute to statute the statute of the statute or reply will, by statute, cause the applicant safter the mailing date of this communication. | t, however, may a reply be time ory minimum of thirty (30) days expire SIX (6) MONTHS from ation to become ABANDONE | nely filed s will be considered timely the mailing date of this co D (35 U.S.C. § 133). | | | | | | | |
| <u>·</u> | (a) filed on 22 June 2002 | | | | | | | | | |
| 1) Responsive to communication2a) This action is FINAL. | (s <i>)</i> filed off <u>23 <i>5une</i> 2003</u> . 2b)⊠ This action is n | on final | | | | | | | | |
| 3) Since this application is in con- | ,— | | resecution as to th | o morito io | | | | | | |
| closed in accordance with the Disp sition of Claims | | | | e ments is | | | | | | |
| 4) Claim(s) 1-41 is/are pending in | the application. | | | | | | | | | |
| 4a) Of the above claim(s) 1-13 a | and 25-41 is/are withdrawn | rom consideration. | | | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | | | | | |
| 6)⊠ Claim(s) <u>14-24</u> is/are rejected. | | | | | | | | | | |
| 7) Claim(s) is/are objected | to. | | | | | | | | | |
| 8) Claim(s) are subject to re | estriction and/or election red | uirement. | | | | | | | | |
| Application Papers | | | | | | | | | | |
| 9) ☐ The specification is objected to b | • | | | | | | | | | |
| 10) The drawing(s) filed onis | | | | | | | | | | |
| Applicant may not request that an | | | | | | | | | | |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. | | | | | | | | | | |
| 12) The oath or declaration is object | | e action. | • | | | | | | | |
| Pri rity under 35 U.S.C. §§ 119 and 120 | • | | | | | | | | | |
| 13) Acknowledgment is made of a c | | er 35 U.S.C. & 119(a |)-(d) or (f) | | | | | | | |
| a) ☐ All b) ☐ Some * c) ☐ None | • • • | 51 00 0.0.0. g 1 10(u | ,, (a) o. (.). | | | | | | | |
| , . , , , , , , , , , , , , , , , , , , | ority documents have been | received. | | | | | | | | |
| <u> </u> | ority documents have been | | on No | | | | | | | |
| | pies of the priority documen | | · | Stage | | | | | | |
| application from the li * See the attached detailed Office | nternational Bureau (PCT Raction for a list of the certific | | ed. | _ | | | | | | |
| 14)☐ Acknowledgment is made of a cla | aim for domestic priority und | ler 35 U.S.C. § 119(€ | e) (to a provisional | application). | | | | | | |
| a) The translation of the foreig | | | | | | | | | | |
| 15) Acknowledgment is made of a cla | aim for domestic priority und | ter 35 U.S.C. §§ 120 | and/or 121. | | | | | | | |
| Attachm nt(s) | | IN [] Image = decorate | . (DTO 440) D | (-) | | | | | | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Revi Information Disclosure Statement(s) (PTO-14 | iew (PTO-948) | | (PTO-413) Paper No(Patent Application (PTO | | | | | | | |

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DETAILED ACTION

Claims

1. Claims 1-41 are pending.

Election/Restrictions

- 2. Applicant's election without traverse of Group II (claims 14-24) in Paper No. 4 (the response of 23 June 21-003) is acknowledged.
- 3. This application contains claims 1-23 and 25-41 drawn to an invention nonelected with traverse in Paper No. 4. A complete reply to any final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 29 April 2002 (Paper No. 2) was considered by the examiner.

Claim Rejections - 35 USC § 112

- 5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 6. Claims 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What does "wherein the combined thickness of the first face sheet, said core, and said second face sheet in said first and second positions is equal" mean? What is

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the combined thickness equal to? Does the core's thickness vary while the overall structure's thickness is constant?

Please clarify the claims.

7. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What does "wherein said step of applying said first and second plurality of fiber reinforced material layers further comprises one of increasing and decreasing said plurality of reinforced fiber material layer [sic] in an inverse relation with changes in thickness of said core" mean?

- A. What is increasing and decreasing? The number of layers? Their thickness?
- B. Does the thickness of each layer decrease as the thickness of the core increases? Does the thickness of each layer increase as the thickness of the core decreases?

Please clarify the claim.

Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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- 9. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 10. Claims 14-17, 20-21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Happy (US 5,935,704) in view of Corbett et al (US 5,895,699).

Happy teaches a pole made by winding resin-impregnated fibers around a mandrel and curing the wound mandrel (col. 1, lines 19-25). The mandrel can be removed (col. 1, line 29). At col. 3, lines 8-24 and 54-61, it teaches that the pole is thicker at its base than at its top and that the number of windings increases with thickness.

Happy teaches that helical winding can lead to sliding of reinforced layers (col. 2, lines 25-26). The examiner deems "sliding" to be the same as "slipping".

Happy fails to teach a core having variable thickness.

Corbett shows in Figure 6, a tapered core **106** having multiple facing layers **102** of equal total thickness thereon. Fiber-reinforced resin layers are used at **102** (col. 4, lines 64-67). Note that the thickness in the panel and chamfer sections are the same. Corbett teaches that, in its structure, the slipping of layers relative to the core is prevented (abstract).

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The references are analogous because they both deal with multilayer fiberreinforced resin structures.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the tapered core and multiple facing layers of Corbett when making the poles of Happy in order to prevent sliding between Happy's layers.

The motivation to employ Corbett's core and facing layers in Happy's pole is found at col. 2, lines 25-26 of Happy and in Corbett's abstract, where the sliding of layers (Happy) and the prevention of such sliding (Corbett) are discussed.

It is deemed desirable to produce poles whose layers do not slide in order to enhance the structural integrity of the poles.

Conclusion

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.

S. M. Nolan

Patent Examiner

Technology Center 1700

SMN/smn 10036237(5) 29 August 2003